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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,429	08/26/2003	Yosuke Inomata	81872.0050	4541

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EXAMINER

OLSEN, ALLAN W

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/648,429

Applicant(s)

INOMATA ET AL.

Examiner

Allan Olsen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
4a) Of the above claim(s) 5-7, 11-14 and 16-20 is/are withdrawn from consideration.
5) ☒ Claim(s) 8-10, 15, 30 and 31 is/are allowed.
6) ☒ Claim(s) 1-4 and 21-29 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 26 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim 28 is objected to because it is dependent upon claim 29.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 4, 21, 23-25 and 27-29 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6,132,805 issued to Moslehi.

Moslehi teaches a method of processing a substrate wherein processing gases are passed through an apertured shutter assembly before contacting the substrate (figure 5, column 7, line 21 – column 8, line 4). Moslehi teaches the process energy source may be an RF power supply used for plasma etching (column 4, lines 27-31; claim 5 and column 8, line 28). Figure 5 of Moslehi depicts an apertured shutter wherein the ratio of open space is lowest around the periphery.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2, 22 and 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moslehi.

The above noted teachings of Moslehi are herein relied upon. It is further noted that Moslehi teaches placing the shutter very close to the substrate (column 7, line 63).

Moslehi does not teach spacing the apertured shutter at a distance of between 5 and 30 mm from the substrate.

It would have been obvious to one skilled in the art to optimize the spacing between the shutter and the substrate to achieve the desired results.

Response to Arguments

Applicant's arguments filed November 29, 2005 have been fully considered but they are not persuasive. Applicant argues that the shutter depicted in figure 5 of Moslehi opens such that process gas passes only through the interior or central portion. As

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such, applicant argues that the only the central portion of the shutter assembly correlates to applicant's claimed plate. Applicant argues that the holes in the central region of Moslehi are evenly distributed.

The examiner respectfully disagrees for the following three reasons. Firstly, the examiner sees no reason why applicant's claimed plate correlates only to the central portion Moslehi's shutter assembly when the shutter is open. If the outermost peripheral region of Moslehi's opened shutter assembly is in fact impervious to process gases, the open area of the extreme periphery would be zero so the open area ratio in this region would be smaller than the central region's open area ratio. Secondly, the periphery of the closed shutter assembly depicted in the right half of figure 5 has a smaller open area ratio. Thirdly, the examiner notes that Moslehi teaches that the shutter actuator ring (68) and a plate-shaped ring (79) are responsible for blocking line of sight transmission of process gases from the peripheral region of the shutter (see column 5, lines 56-67). Such a function would not be necessary if the periphery was impervious to process gases as is suggested by applicant.

With respect to claim 2, applicant argues that Moslehi teaches away from the claimed invention. Applicant notes that Moslehi teaches placing the shadow mask very close to the substrate to replicate the mask's pattern on the surface of the substrate whereas applicant's invention places the mask at a far distance so that the pattern is not replicated on the substrate.

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The examiner notes that applicant is relying on one particular embodiment of Moslehi, however, Moslehi is not limited to this particular embodiment. In fact, Moslehi teaches a spacing of 5 mm between two shutter planes (column 5, lines 24-26).

Allowable Subject Matter

Claims 8-10, 15, 30 and 31 are allowed.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allan Olsen whose telephone number is 571-272-1441. The examiner can normally be reached on M-F 1-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571-272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Allan Olsen', is positioned to the left of the printed name.

Allan Olsen
Primary Examiner
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